ANSTRAD







DMP2000 / DMP3000 DMP4000 PRINTER SERVICE MANUAL

DMP2000/3000 SECTION ONLY. FOR DMP4000 SEE PAGES 13 ONWARDS

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TECHNICAL SPECIFICATION

DMP2000 DMP2000

	DIVIT 2000	DIVIF3000
Print System:	Impact Dot-Matrix	Impact Dot-Matrix
Print Speed	105 CPS max	105 CPS (normal character) 52 CPS (double width character)
Printing Characteristics	9 x 9 (normal character)	9 x 9 (normal character)
(vertical x horizontal)	9 x 10 (expanded character)	9 x 10 (double width character)
	9 x chosen amount (9 pin bit-image)	8 x chosen amount (bit-image)
	96 characters ASCII + international	9 x chosen amount (9 pin bit-image)
	character sets	96 characters ASCII + Italics + international character sets
Normal Character Size		2.1 (width) x 2.55 (height) mm
Print Sizes		
Standard (Pica)	10 CPI/80CPL	10 CPI/80 CPL
Mini (Elite)	12 CPI/96 CPL	12 CPI/96 CPL
Condensed Double Width Standard	17 CPI/137 CPL	
Double Width Standard	5 CPI/40 CPL 6 CPI/48 CPL	5 CPI/40 CPL
Double Width Condensed	8.5 CPI/68 CPL	6 CPI/48 CPL 8.5 CPI/68 CPL
Number of Columns	80 (Standard)	80 (Standard)
Number of Columns	40 (Double Width)	40 (Double Width)
	132 (Condensed)	132 (Condensed)
	66 (Double Width Condensed)	66 (Double Width Condensed)
Line Feed Rates	1/6 inch	1/6 inch
	1/8 inch	1/8 inch
	7/72 inch	7/72 inch
	n/216 inch programmable	n/216 inch programmable
	n/72 inch programmable	n/72 inch programmable
Line Feed Speed	200 mS(1/6 inch)	200 mS(1/6 inch)

Paper Type 4.5 to 10 inches fan-fold (tractor feed) 4 to 9.5 inches cut sheet or roll paper

(friction feed) 2 sheets (including original)

Number of Conies 40 gsm pressure-sensititive paper train Interface Parallel (Centronics compatible) Ink Ribbon Dimensions

Cassette (1 million characters life per ribbon)Cassette (1 million characters life per ribbon) 380 (w) x 100 (h) x 260 (d) mm

Weight Mains Supply 220-240V AC 50Hz 4.5 to 10 inches fan-fold (tractor feed) 4 to 9.5 inches cut sheet or roll paper (friction feed)

2 sheets (including original) 40 gsm pressure-sensititive paper train Parallel (Centronics compatible)

400 (w) x 250 (d) x 100 (h) mm 4.2Ka

220-240V AC 50Hz

SAFETY TEST

PLEASE NOTE: When any work is completed on this unit, correct safety tests must be carried out to ensure continued electrical safety.

PLEASE NOTE: All parts shown with the part number prefix ! are Safety Items and must be replaced with similar items having an identical safety specification.

All of these items may be purchased direct from AMSTRAD PLC.

Interface

inte	TIAGE		_				
PIN	OESIGNATION	1/0	DESCRIPTION	PIN	DESTINATION	1/0	DESCRIPTION
1	DATA	IN	Taking pin low enables receiving of DATA 0 to	14	NC		
	STROBE		DATA 7 Minimum necessary pulse width is 0.5 u.S.	15	NC		
2	DATA 0 (LSB)	IN	8-bit data signal. Taking pin high or low	16	DV		
3	DATA 1		corresponds to 1 and 0 respectively.	17	CHASSIS GND		
4	DATA 2			18	+5V	DUT	+5V (50mA max) power supply output
5 6	DATA 3 DATA 4			19	GND		Signal ground
1	DATA 5			20	GND		Signal ground
-	DATA 6			21	GND		Signal ground
9	DATA 7 (MSB)		Active low output pulse generated when data entry	22	GND		Signal ground
10	ACKNDWLEDGE	DUT	and processing are completed. After this signal,	23	GND		Signal ground
			subsequent data will be accepted. This signal is	24	GND		Signal ground
			also generated when changing from off line to on line	25	GND		Signal ground
11	BUSY	DUI	Dutput high under any of the following conditions:	26	GND		Signal ground
			a. Going off line	27	GND		Signal ground
			 b. Paper feed or printing operation c. When a control code is received. 	28	GND		Signal ground
12	PE	DU1		29	GND		Signal ground
12	rE.	00	paper out is sensed after executing a paper feed	30	GND		Signal ground
13	SELECT	DU	command. When off line, paper out is always sensed. On line and off line correspond to high and low.	31	INPUT PRIME	IN	Taking pin low initialises printer Minimum necessary pulse width is 100uS
13	OLLEG!	50	respectively. When off line, DATA 0 to DATA 7 are not receivable.	32	FAULT	OUT	Dutput low when off line
			IIUL TELETYALIE.	33	GND		
				34	NC		
				35	+5V	DUT	

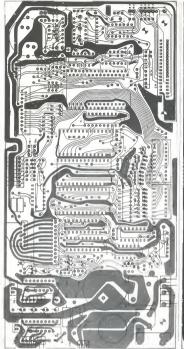
BIP switch settings

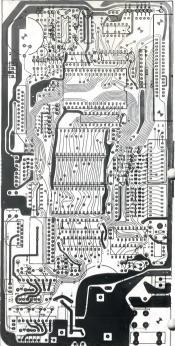
Described below is how to adjust DIP switches DS1-1, DS1-2 and DS1-3 to select one of the international character sets. The following table indicates the functions of the remaining DIP switches:

SWITCH	FUNCTION	OFF	ON
DS1-1 DS1-2 DS1-3 DS1-4 DS1-5 DS1-6 DS1-7 DS1-8	International characters CR function Paper out sensor Page length Code unit	See Chapter 2 See Chapter 2 See Chapter 2 CR only Enable 11 inch 8 units Standard	See Chapter 2 See Chapter 2 See Chapter 2 CR & LF Disable 12 inch 7 units* NLQ-Standard
DS2-1 DS2-2 DS2-3 DS2-4 DS2-5 DS2-6 DS2-7 DS2-8 DS2-9 DS2-10	Buffer mode Buffer mode SLCT IN signal Alarm bleeper Default typeface Default typeface Do not use	Unslashed Disable Character Character/graphics Not sent Disable Bold off Condensed off	Slashed Enable Graphics Download Automatically sent Enable Condensed & Bold on Bold on

^{*} Set DS1-7 ON when using the printer with an Apple computer.

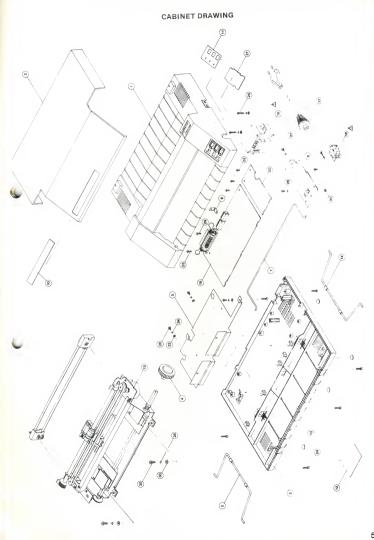
REMEMBER - Always switch the printer off before adjusting the DIP switches.



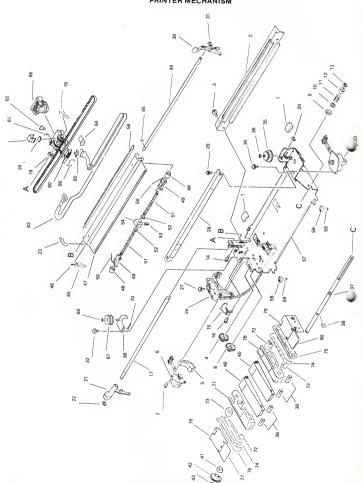


CARINET PARTS LIST

Svm	Description CABINET PARTS		
Oylii		DMP2000	DMP3000
1	Top Cabinet	. 190701	190851
2	Bottom Cabinet	190702	190852
3	Dust Cover	190703	190850
4	Rotary Knob	190704	190853
5 6 7	Shield Plate	190705	190705
6	Heat Sink		
7	Paper Guide	190706	190706
8	Metal Leg	190707	190707
9	Earth Tag		
10	Name Plate	190708	190856
11	Function Inlay	190709	190855
12	Bottom Inlay	190710	190854
13	Rubber Foot Dia 10x1.6mm	190711	190711
14	Rubber Ring		
15	Printer Mechanism	190712	190712
16	Mains Transformer	190713	190713
17	AC Power Cord BS Lead 3 Core 6'	1	
18	Power Switch 2Pit SDE3GE	190714	190714
19	PCB Main	1	
20	PCB AC		
21	PCB LED	1 1	
	Printer Ribbon	SOFT06049	SOFT50015
	Printer Cable - PL2		



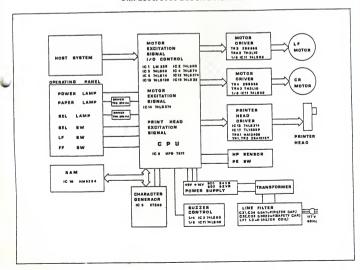
PRINTER MECHANISM

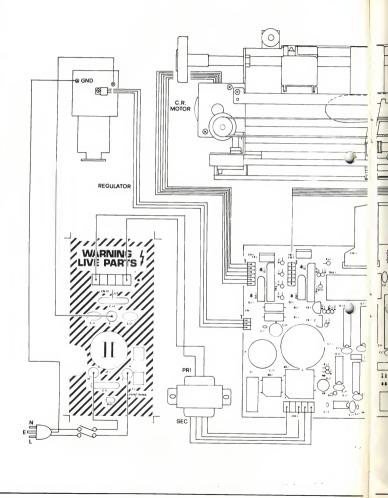


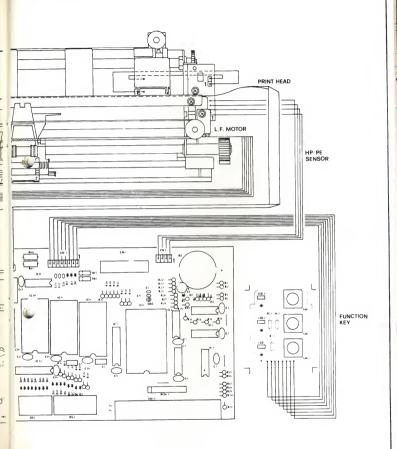
PRINTER MECHANISM PARTS LIST

_	Description	Part No.			
Sym		Part No.			100700
1	Damper R	190748	47	Sub Frame	190782 190783
2	Set Platen	190749	48	Set Roller	
4.8	LF gear	190750	49	SP Bracket	190784
5	LF Heat Sink	190751	50	Roller Spring	190785
6	Set LF Motor	190752	51	Guide Spring	190786
9	Bush	190753	52	Washer	190787
10	Poly Slider	190754	53	Guide Spring-B	190788
11	LF Spring	190755	54	Centre Guide	190789
12	LF Collar	190756	56	Paper Press	190790
13	E Ring E-6	190757	57	Set Base	190791
15	Clip Plate	190758	58	Damper F	190792
17	Set CR Shaft	190759	59	Damper Collar	190793
18	Felt Ring	190760	60	Set Carriage	190794
19	CR Spring R	190761	61	Stopper Spring	190795
20	E Ring E-4	190762	62	Ribbon Stopper	190796
21	Gap Lever	190763	63	Set FPC	190797
23	CR Spring L	190764	64	Cable Clamp	190798
23	Upper Felt	190765	65	Pressure BD	190799
	Upper Spring	190766	66	Pressure Spring	190800
25	Sensor Assy.	190767	67	ADJ Pulley	190801
26	Set Guide Frame	190768	68	Set ADJ. Plate	190802
28	Release Lever	190769	71	Tractor L	190803
30		190770	72	Main Sprocket	190804
31	E Ring E-3	190771	73	Set Feed Roller	190805
33	Set CR Motor	190772	74	Pin Belt	190806
35	Set CR Gear	190773	75	Tractor Plate	190807
36	E Ring E-2	190774	76	Tractor Cover L	190808
37	LF Shaft	190775	77	Cover Plate L	190809
38	C Ring	190776	78	Tractor R	190810
39	Tractor Stopper	190777	79	Tractor Cover R	190811
40	Paper Guide	190778	80	Cover Plate R	190812
42	LF Shaft Gear	190779	85	Print Head With	190813
44	Roller Shaft	1907/9	00	Ribbon Mask	
45	S Release Lever	190780	86	Printer Ribbon	SOFT06049
46	Screw M3x6	190781	- 00	T Time Theodi	

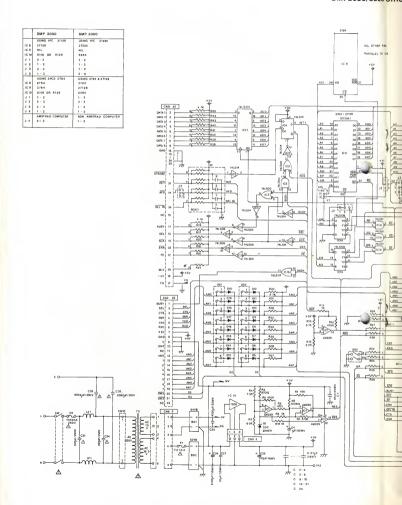
DMP2000/3000 BLOCK DIAGRAM



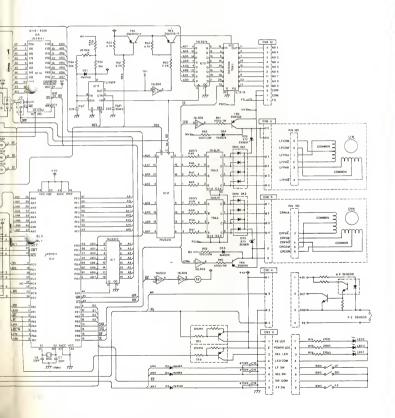




DMP2000/3000 CIRC



PINS TO ICE



ELECTRICAL PARTS LIST

	LECTRICAL PARTS LIST	
Circ. Ref.	Description	Part No.
IC's IC1	LM339/HA17339	190724
IC2	HD74LS00P	190728
IC3, 11 IC4	MB74LS06	190729
IC5	HD74LS74AP HD74LS14P	40014
IC6	uPD7811G-071	190730 190733
IC7	HD74LS373P	170108
IC8	HD74LS373P HN4827128G-25 50nS	190722
IC10	MB8128-15	190723
IC12-14	HD74LS374P	190727
IC15, 16	HD74LS139P HA17555	190726 190725
TRA1	HA13408	190725
TRA2, 3	TH3L10	190734
IC18	L7805CY	190734 190731
Transistors TR1, 2 TR3, 4	2SA1015-Y	170453
	2SB858B	190721
TR5, 6	DTA114E	151096
Diodes D1	Zener Diode 3.3V DC	190719
D2-22	Sig Diode IN4148	190719 190715
D23	Zener Diode 27VDC	190720
D24, 25 BD1	IN4004	190716
BD2	Bridge Rect S4VB10 Bridge Rect S2VB10	190718 190717
DA1. 2	Diode Array D1CA	190815
DA1, 2 LED1, 2	Diode Array D1CA LED Grn TLG211	190744
LED 2	LED Red TLR211	190743
Miscellaneous DS1	8 Way Dip Switch N/O	1 190737
DS2	10 Way Dip Switch N/O Power Switch 2Pit	190738
SW1	Power Switch 2Pit	A 190714
SW2-4 TX	P/B Tact Switch 1 Pit	190739
LF1	Mains Transformer BS Mains Filter Coil	№ 190713 № 190740
BZ	Piezo Bleeper	190736
OSC	Ceramic Resonator 11MHz	190742
VR	Semifixed Resistor 68 ohm	190745
RCN1	RC Network T002	190732
Resistors		
Desc.	Circ. ref.	Part No.
47 ohm 82 ohm	R5	10020
330ohm	R3 R7, 72, 73	10031
620ohm	R46-49, 56-59	190816
1kohm	R8. 11. 14	10061
2.2kohm	R12, 50, 51	10069
4.7kohm 5.1kohm	R15-22, 24-45, 52, 53 R13	10077
6.2kohm	R9	190817
7.5kohm	R4	190818 190819
10kohm	R55	10085
27kohm	R54	10095
39kohm 47kohm	R64 R1	10099
100kohm	R2	10101
470kohm	R6. 7. 10	10131
100ohm/2W	R62, 63 R60, 61	190820
470ohm/1W		190821
Ceramic Capa		
33pF 470pF	C7, 8 C11-13	150514
470pr -	C11-13 C22, 27	190822 24011
Mono Glass C		24011
	C1-3, 5, 6, 9, 10, 14-21, 23	190823
Mylar Capacito		
0.01uF	C24	21006
Electrolytic Ca		
1uF/50V	C1, 4	20062
47uF/16V	C1, 4 C26 C28	20049
4700pF/16V		150479
Polystyrene Ca		
0.0022uF/250V 0.047uF/250V	C32, 33 C31, 34	↑190824 ↑190825
5.547 di /230V	001,04	I ™ 190852

DMP4000 SECTION

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SAFETY TEST

nt system:

PLEASE NOTE: When any work is completed on this unit, correct safety tests must be carried out to ensure continued electrical safety.

Line feed rates:

1/6 inch

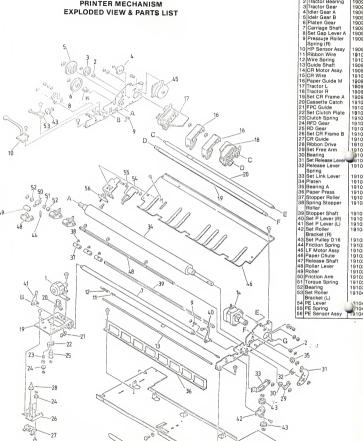
All of these items may be purchased direct from AMSTRAD PLC.

Wire dot-matrix

233 (condensed)

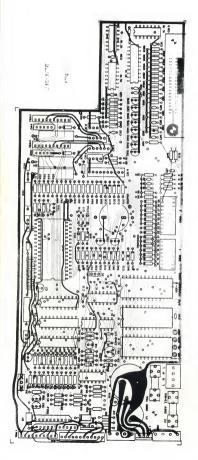
			4.00.1
Print speed:	200 CPS (standard) 50 CPS (NLQ)		1/8 inch 7/72 inch n·/72 inch programmable
Printing characteristics	9 x 9 (ASCII characters - table 1)		n-/216 inch programmable
(vertical x horizontal):	18 x 9 (ASCII characters - table 2) 12 x 11 (special characters - tables 3.1 and 3.2)	Line feed speed:	100 mS (1/6 inch)
	24 x 11 (special characters - tables 4.1 and 4.2) 8 x chosen amount (bit-image graphics)	Paper type:	Tractor feed (fan fold) - 3 to 16 ¹ / ₂ inches (75 to 420 mm)
Characters:	ASCII - 96 Italics - 96 NLO - 96		Friction feed (cut sheet or roll) - 2 to 15 \(^1/_2\) inches (50 to 395 mm)
	NLQ italics - 96	Interface:	Parallel (Centronics compatible)
	International character sets - 9 Special characters - 132	Mains supply:	220-240 Volts AC 50 Hz
Print sizes:	Standard (Pica) - 10 CPI / 136 CPL Mini (Elite) - 12 CPI / 163 CPL	Dimensions:	24 (width) x 14 (depth) x 5 (height) inches (600 x 350 x 120 mm)
	Condensed - 17 CPI / 233 CPL	Weight:	9.5 kg
Number of columns:	136 (standard)		

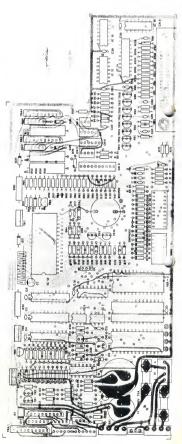
PRINTER MECHANISM



	MECHANISM PARTS LIST			
S	Description	Part No.		
	Print Head Tractor Bearing Tractor Gear	190972 190974 190975		
1 6	Idler Gear A Idelr Gear B Platen Gear	190977 190979 190980		
1 8	Carriage Shaft Set Gap Lever A Pressure Roller	190985 190986 190989		
111	Spring (R) HP Sensor Assy Ribbon Wire	190991 191050		
13	Wire Spring Guide Shaft CR Motor Assy.	191051 190992 190993		
16	CR Wire Paper Guide M Tractor L Tractor R	191052 190994 190995		
19	Set CR Frame A	190996 190999 191000		
23	FPC Guide Set Clutch Plate Clutch Spring RFD Gear	191001 191002 191003 191004		
25	RD Gear Set CR Frame B CR Guide	191004 191005 191006 191007		
128	Ribbon Drive Set Free Arm Bearing	191008		
31 32	Set Release Lever Release Lever Spring	91014 91015 191016		
35	Set Link Lever Platen Bearing A	191017 191018 191019		
36 37 38	Paper Press Stopper Roller Spring Stopper Roller	191020 191021 191022		
40	Stopper Shaft Set P Lever (R) Set P Lever (L)	191023 191024 191025		
42	Set Roller Bracket (R) Set Pulley D16	191053		
44 45 46	Friction Spring LF Motor Assy Paper Chute	191029 191032 191033		
47 48 49	Release Shaft Roller Lever Roller	191034 191035 191036		
50 51	Friction Arm Torque Spring Bearing	191037 191038 191039		
53	Set Roller	191040		

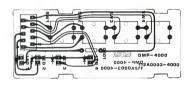
COMPONENT LAYOUTS





PCB LAYOUTS





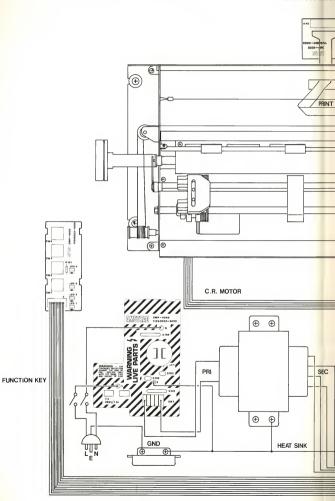


DMP4000 ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
IC's		
IC's IG6 IG7 IC8 IC3 IC4 IC14 IC5 IC15 IC15 IC23 IC16 IC10 IC10 IC10 IC10 IC10 IC10 IC10 IC11	IC LM393 IC NE555 IC 74LS139 IC 74LS273 IC 74LS273 IC 74LS373 IC 74LS377 IC 74LS377 IC 74LS00 IC 74LS14 IC 74LS14 IC 74LS7 IC 74LS14 IC Regulator 7805 IC UPD7811 IC EPROM 256K 250nS IC SARM 6264-15	190900 190901 190722 190903 170108 190727 190904 190728 190905 190730 40014 190731 190733 190857
	IC 28 Way Socket	190506
Transistors		
TR1, 2, 5, 8, 9, 11-1 TR4 TR6, 7 TR3 TRA1-4 PH1, 2 TR20 TR19	BTR 2SC3656 TR 2SB882 TR 2SB886 TR 2SD1196 TR Array TH3L10 TR SF5216 TR DTC114N TR 2SC1815	190908 190909 190910 190911 190734 191046 191047
Diodes		
D2-4, 9, 12-33 D6, 7, 11, 34 BR1, 2 D10 D35, 36 D1, 5, 8 DA1-4 LED1, 2	D IN4148 D IN4004 D Bridge Rect. KBL02 D Zener 3.3V 0.5W D Zener RD47F 47V D Zener IN6275 D Array DICA20 LED Red	190715 190716 190912 190913 190915 190916 190917
LED3, 4	LED Green	190926
Switches		
SW DSW1 DSW2 SW1-4	Mains Switch Dip Switch 8 Way Dip Switch 10 Way Tact Switch	190920 190737 190738 190921

Description	Ref. No.	Part No.
Resistors		
18ohm	R43	10012
180ohm	R112, 113, 116	
220ohm	R41	10040
330ohm	R79-81, 201	10044
470ohm	R92, 94	10048
680ohm 1kohm	R1, 9-16, 51-58	10052
IKONIII	R3, 18, 42, 45, 47, 67-74, 78, 87-90, 93, 96-108	10061
2k2ohm	R4, 19-27, 59-66	10069
4k7ohm	R8, 17, 34-39, 40, 44, 46, 48, 49,	10077
	75, 76, 83-86, 91, 95, 110, 115	
5k1ohm	R5, 28	10078
6k8ohm	R29, 114	10081
10kohm	R31, 70	10085
18kohm	R6	10091
22kohm	R7A, 111	10093
51kohm	R30	10102
470kohm	R32	10125
7.5ohm/3W	R77, 78	055
22ohm/2W	R50	191056
36ohm/2W	R33	191057
Ceramic Capacit	tors	
22pF	C16, 17	150511
100pF	C11	24016
470pF	C24, 25, 27, 31	24004
0.001uF	C9, 18-21	24027
0.01uF	C10	24011
0.22uF/250V	C102, 103	△ 191058
0.047uF/250V	C101, 104	191059
0.1uF	C4-6, 12-14, 22, 23, 26, 28-30	24020
Electrolytic Capa	acitors	
1uF/50V	[C8	20062
10uF/16V	C7	20024
4700uF/16V	C2	150479
6800uF/C3		191060

Circ. Ref.	Description	Part No.
Miscellaneou	ıs	
LF1 X Tal VR1	Filter Coil 1.3 mH 11 MHz Ceramic Resonator Semi Fixed Resistor 68kohm Piezo Bleeper Printer Cable - PL2 Instruction Book 36 Way Connector Fuse T14 250V Fuse T5A 250V Fuse T5A 250V Fuse T5A 250V	190918 190919 190928 190736 190947 190948 190949 △190960 S/88150



Vo.

